

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

RECEIVED
NOV 23 1999

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

PIT REMEDIATION AND CLOSURE REPORT

Operator: Energen Resources Telephone: (505) 325-6800

Address: 2198 Bloomfield Highway Farmington, NM 87401

Facility Or: McWhorter-Duncan # 1

Well Name

Location: Unit or Qtr/Qtr Sec K Sec 10 T 29N R 14W County San Juan

Pit Type: Separator X Dehydrator _____ Other _____

Land Type: BLM _____ State _____ Fee _____ Other _____

Pit Location: Pit dimensions: Length 12 ft, width 12 ft, depth 3 ft

(Attach diagram)

Reference: wellhead X other _____

Footage from reference: 80 ft

Direction from reference: 30 Degrees X East North _____
of
_____ West South X

Depth to Ground Water: <u>>100 feet</u>	Less than 50 feet	(20 points)	
(vertical distance from	50 ft to 99 feet	(10 points)	
contaminants to seasonal	<u>X</u> Greater than 100 feet	(0 points)	<u>0</u>
highwater elevation of			
ground water)			

Wellhead Protection Area:	Yes	(20 points)	
(less than 200 feet from a private	<u>X</u> No	(0 points)	<u>0</u>
domestic water source, or: less than			
1000 feet from all other water sources).			

Distance to Surface Water:	Less than 200 feet	(20 points)	
(Horizontal distance to perennial	200 feet to 1000 feet	(10 points)	
lakes, ponds, rivers, streams, creeks,	<u>X</u> Greater than 1000 feet	(0 points)	<u>0</u>
irrigation canals and ditches.)			

P:\pits\PrrC@.WK3

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 8/24/99 Date Completed: 8/24/99

Excavation _____ Approx. cubic yards 0

Landfarmed _____ Insitu Bioremediation _____

Other _____

Remediation Method: Onsite _____ Offsite _____

(Check all appropriate
sections)

General Description of Remedial Action : On 8/24/99, the pit was sampled at a depth of 3 feet below pit bottom. A soil sample was obtained from the center bottom of the pit at 3 feet below pit bottom utilizing U.S.E.P.A. protocol and sent to Inter-Mountain Labs for GRO/DRO analysis. Results provided concentrations below NMOCD guidelines.

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit:

Closure Sampling:
(if multiple samples,
attach sample results

and diagram of sample
locations and depths)

Sample location Center Bottom

Sample depth 3 feet below pit bottom

Sample date 8/24/99

Sample time 10:50

Sample Results

Benzene(ppm) _____

Total BTEX (PPM) _____

Field Headspace (ppm) ND

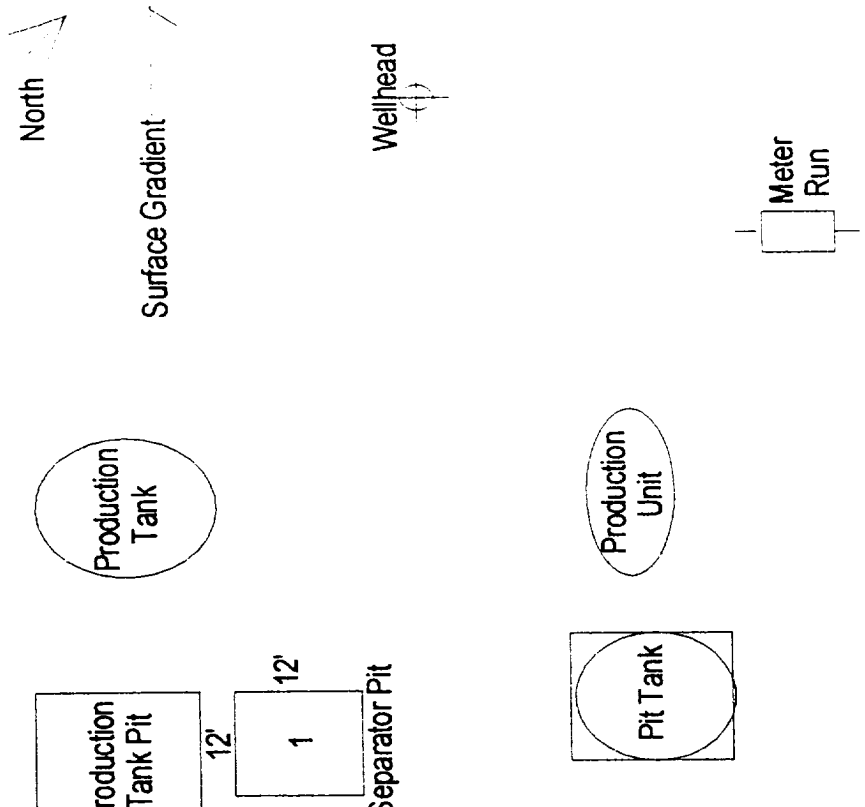
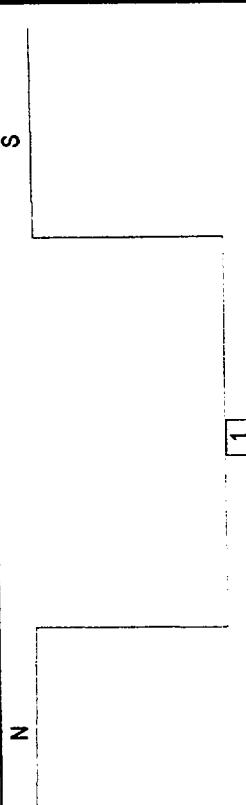
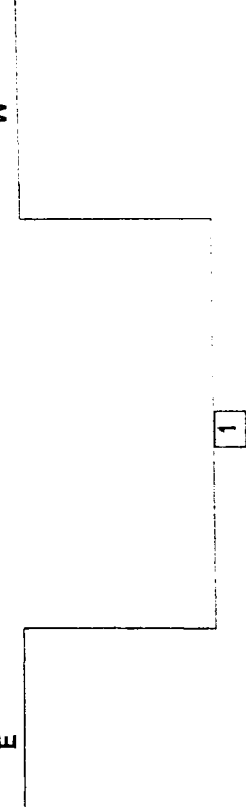
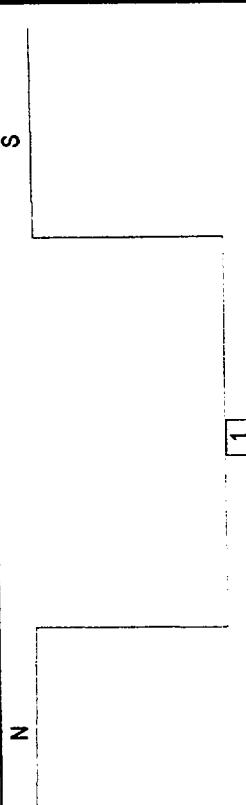
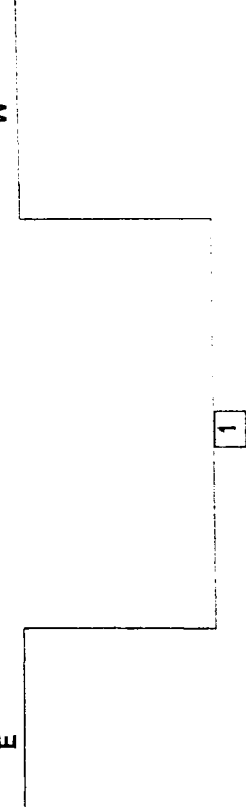
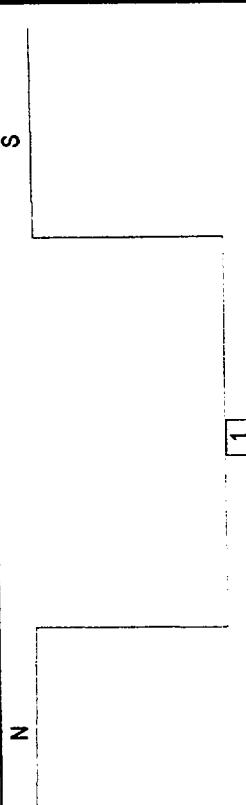
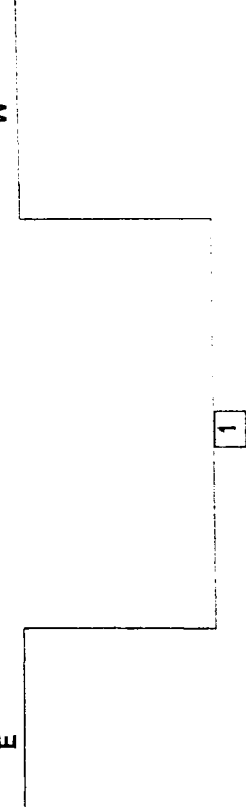
TPH <10

Ground Water Sample: Yes _____ No X (if yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETED TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE 8/16/99 PRINTED NAME Gary Brink

SIGNATURE [Signature] and TITLE Production Superintendent

Location : McWhorter - Duncun # 1 Quad : K Section : 10 Township: 29N Range : 14W		Overview of Location and Sampling : 																																								
Pit : Separator Reference : 80' South 30° East of wellhead Initial Size : 12' x 12' x 3' deep Final Size : 12' x 12' x 3' deep Yds. Excavated : 0 cubic yards Depth to Groundwater: >100' Nearest Water Source: >1000' Nearest Surface Water: >1000' NMOCD Ranking Score: 0 TPH Closure Standard: 5000		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample #</th> <th>Location</th> <th>OVM</th> </tr> </thead> <tbody> <tr><td>1</td><td>Center @ 3'</td><td>ND</td></tr> <tr><td>2</td><td>below pit</td><td></td></tr> <tr><td>3</td><td>bottom</td><td></td></tr> <tr><td>4</td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td></tr> <tr><td>7</td><td></td><td></td></tr> <tr><td>8</td><td></td><td></td></tr> <tr><td>9</td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td></tr> </tbody> </table>		Sample #	Location	OVM	1	Center @ 3'	ND	2	below pit		3	bottom		4			5			6			7			8			9			10			11			12		
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Comments : Sent sample #1 to Inter Mountain Labs for GRO/DRO analysis.		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; vertical-align: top;"> Pit Profile : North to South :  </td> <td style="width:50%; vertical-align: top;"> Pit Profile : East to West :  </td> </tr> </table>		Pit Profile : North to South : 	Pit Profile : East to West : 																																					
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Frank McDonald
Cimarron Oilfield Service Co.
P. O. Box 3235
Farmington, NM 87401

September 8, 1999

Mr. McDonald:

Enclosed please find the reports for the sample submitted for Energen Resources to our laboratory for analysis on August 30, 1999.

If you have any questions about the results of these analyses, please don't hesitate to call at your convenience.

Thank you for choosing IML for your analytical needs!

Sincerely,

A handwritten signature in black ink that reads 'Sharon Williams'. The signature is fluid and cursive, with the first name 'Sharon' being more prominent than the last name 'Williams'.

Sharon Williams
Organics Lab Supervisor

Enclosure

xc: File



ENERGEN RESOURCES

Case Narrative

On August 30, 1999, one soil sample was submitted to Inter-Mountain Laboratories - Farmington for analysis. The sample was received intact. Total Petroleum Hydrocarbons as Diesel Range Organics (8015 DRO); Gasoline Range Organics (8015 GRO) was performed on the sample as per the accompanying Chain of Custody form.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analyses of the sample reported herein are found in "Test Methods for Evaluation of Solid Waste: Physical/Chemical Methods", SW-846, USEPA, November, 1986.

Quality control data appear on the analytical report and may be identified by title. If there are any questions regarding the information presented in this package, please feel free to call at your convenience.

Sincerely,


Sharon Williams
Organic Analyst / IML- Farmington



Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Client: Energen Resources
Project: McWhorter-Duncan #1
Sample ID: Pit #1 @ 3'
Lab ID: 0399W04527
Matrix: Soil
Condition: Warm

Date Reported: 09/08/99
Date Sampled: 08/24/99
Date Received: 08/30/99
Date Analyzed: 09/07/99

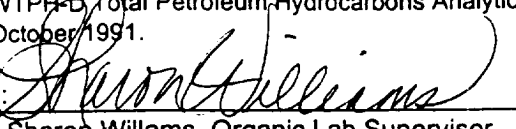
Parameter	Analytical Result	PQL	Units
Diesel Range Organics-EPA Method 8015			
Diesel Range Organics	<5	5	mg/Kg
Diesel Range Organics as Diesel	<5	5	mg/Kg
Total Extractable Hydrocarbons	<5	5	mg/Kg

Quality Control - Surrogate Recovery	%	QC Limits
o-Terphenyl(SUR-8015)	81	70 - 130

Reference: DRO - USEPA Method for Determination of Diesel Range Organics. Revision 2, February 1992.

WTPH-D Total Petroleum Hydrocarbons Analytical Methods for Soil, Washington State Department of Ecology, Revision 3, October 1991.

Reviewed By:


Sharon Willams, Organic Lab Supervisor



Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Client: Energen Resources
Project: McWhorter-Duncan #1
Sample ID: Pit #1 @ 3'
Lab ID: 0399W04527
Matrix: Soil
Condition: Warm

Date Reported: 09/07/99

Date Sampled: 08/24/99

Date Received: 08/30/99

Date Analyzed: 09/03/99

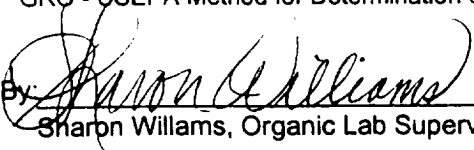
Parameter	Analytical Result	PQL	Units
GRO - EPA Method 8015			
Gasoline Range Organics	<5	5	mg/Kg
Gasoline Range Organics as Gasoline	<5	5	mg/Kg
Total Purgeable Hydrocarbons	<5	5	mg/Kg

Quality Control - Surrogate Recovery	%	QC Limits
a,a,a-Trifluorotoluene(SUR-8015)	110	70 - 130
4-Bromofluorobenzene(SUR-8015)	130	70 - 130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

GRO - USEPA Method for Determination of Gasoline Range Organics, Revision 5, February 1992.

Reviewed By:


Sharon Williams, Organic Lab Supervisor

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSES / PARAMETERS									
Cruiser		Molokai-Duneen #1											
Sampler: (Signature) P. K. Wilson		Chain of Custody Tape No.		Remarks									
Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers								
Pit #1631	8/21/99	1050		Soil	1	Geo/Deo							
Relinquished by: (Signature) P. K. Wilson		Date 8/21/99	Time 700	Received by: (Signature) J. M. R. Rangel		Date 8/21/99	Time 701						
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time						
Relinquished by: (Signature)		Date	Time	Received by laboratory: (Signature) J. M. R. Rangel		Date 8-30-99	Time 1346						
Inter-Mountain Laboratories, Inc. ☐ Absaraka 555 Absaraka Sheridan, Wyoming 82801 Telephone (307) 674-7506 ☐ 1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945 ☐ 1701 Phillips Circle Gillette, Wyoming 82718 Telephone (307) 682-8945 ☐ 2506 West Main Street Farmingington, NM 87401 Telephone (505) 326-4737 ☐ 11183 State Hwy. 30 College Station, TX 77845 Telephone (409) 776-8945													
61065													